Water Challenges in Egypt
“Possible Private Sector Contributions”
American Chamber of Commerce CSR Committee Meeting (17/2/2010)

“Egypt’s Water Challenges & Possible CSR Opportunities”
Khaled Abu-Zeid, Ph.D., PE, PMP
Regional Water Resources Program Manager, CEDARE

Per Capita Water Share and Agriculture Land in Egypt

Population Density on Waterways

Urban Encroachment on Agriculture Land & Impacts on Irrigation Infrastructure
Industrial Water Use 2007

Wastewater Reuse in Egypt (2007-2008)

Climate Change Impact on Water Resources in the Nile

- Very Low Precipitation
- High Precipitation

1660 BCM/year annual precipitation on the Nile Basin.
7000 BCM/year annual precipitation on the Nile Basin Countries.
Egypt’s Use from the Nile is 55.5 BCM/year.

Per Capita Share of Renewable Water Resources & Green Cover

General Circulation Model for Climate Change

Estimates

Target 10: Halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation.

End Poverty 2015: Make it happen.
### Coverage Needed to meet MDGs

**Targets for water supply by 2015**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population with no access to water (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>40%</td>
</tr>
<tr>
<td>2005</td>
<td>18%</td>
</tr>
<tr>
<td>2015</td>
<td>20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Total population (M)</th>
<th>Investment needed for full coverage (M)</th>
<th>Investment needed to meet MDGs (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>22</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>2005</td>
<td>12</td>
<td>11.25</td>
<td>2.25</td>
</tr>
<tr>
<td>2015</td>
<td>16</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

### Coverage Needed to meet MDGs

**Targets for Sanitation by 2015**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population with no access to sanitation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>70%</td>
</tr>
<tr>
<td>2005</td>
<td>54%</td>
</tr>
<tr>
<td>2015</td>
<td>35%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Total population (M)</th>
<th>Investment needed for full coverage (M)</th>
<th>Investment needed to meet MDGs (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>38</td>
<td>46</td>
<td>18</td>
</tr>
<tr>
<td>2005</td>
<td>38</td>
<td>59</td>
<td>23</td>
</tr>
<tr>
<td>2015</td>
<td>28</td>
<td>80</td>
<td></td>
</tr>
</tbody>
</table>

### Availability of funds for Completion of Flood protection & Storage Projects

- Egypt’s Floods 2010

### 2050 Strategy for Egypt

- 2050 Water Needs Possible Strategy in Valley Scenario
Possible Strategy for 2050

- 500 m³/capita/year
- 173 million in 2050
- 60.7 BCM for Agriculture Use
- 17.3 BCM for Domestic Use
- 8.7 BCM for Industrial
- 55.5 BCM Nile Water
- 6 BCM Agriculture Drainage Reuse
- 8.5 BCM Renewable Groundwater
- 10 BCM Treated Wastewater
- 2 BCM Desalination
- 4 BCM Non-Renewable Groundwater

Possible CSR Opportunities

Cooperation with the Egyptian Water Partnership

Solid Waste Management Near Waterways
Arrange with Meema: Puzzle

Meema's Adventure in the Wastewater

Cooperation with the Arab Water Council

Arab Water Council Journal

World Water Day (22 March)
45% blue water
41% green water
14% grey water
210 evaporated water
50 BCM polluted water

Water footprint of EU’s cotton consumption (blue water)

This is a global average and aggregate number. Policy decisions should be taken on the basis of:
1. Actual water footprint of certain coffee at the precise production location.
2. Ratio green/blue/grey water footprint.
3. Local impacts of the water footprint based on local vulnerability and scarcity.

Water footprint of EU’s cotton consumption (green water)

Water footprint of EU’s cotton consumption (grey water)

Tea requires 30 litres /cup
AWC Water Bottling Honorary Board

Arab Water Council Building
A Blue/Green Building

Arab Water Academy

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